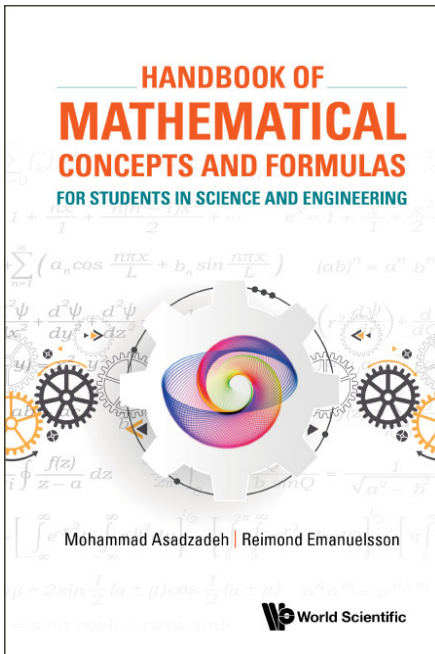## Handbook of Mathematical Concepts and Formulas
for Students in Science and Engineering

By: Mohammad Asadzadeh
   (*Chalmers University of Technology, Sweden*)

Reimond Emanuelsson
   (*Chalmers University of Technology, Sweden*)

ABOUT THE BOOK

This book is a comprehensive collection of main mathematical concepts: definitions, theorems, tables, and formulas that the students of science and engineering encounter in their studies and later on in their professional careers. The aim is to introduce mathematics in an up-to-date text that supports the reader/ target group to see, easily accessible, ways to approach their questions/problems, meanwhile getting familiar with, often short, mathematical/logical reasoning. The layout is designed so that the theory, applications, and examples are in correlation with each other. The book covers crucial concepts of whole calculus, linear and abstract algebra, as well as analysis, applied math, mathematical statistics, and numerical analysis. Most of the complex theorems appear in a simplified form without affecting their context. There are appendices with Mathematica and MatLab programming, which contain programs of simple character for educational purposes, as well as some more involved ones designed to solve problems of more real application.

READERSHIP

Students in Natural Science and Engineering Programmes at universities, instructors, professionals in industry.

CONTENTS

ABOUT THE AUTHORS

Mohammad Asadzadeh is a Professor of Applied Mathematics at Chalmers University of Technology, with over four decades of experience in teaching mathematics at both undergraduate and graduate levels for students in engineering and science, at Chalmers University of Technology and the University of Gothenburg, University of Michigan (Ann Arbor) and Cornell University.

His research interest is numerical analysis of hyperbolic PDEs. He has over 70 research papers in the field. M Asadzadeh serves as associate editor for four applied math journals, has authored

several Compendiums and two books: *Analysis and Linear Algebra*, Student Literature, ed 1 (2004), ed 2 (2007) (in Swedish), and *An Introduction to Finite Element Method for Differential Equations*, Wiley (2002).

Reimond Emanuelsson, is a celebrated Lecturer of Mathematics and Mathematical Statistics at Chalmers University of Technology and the University of Gothenburg. He has been teaching undergraduate mathematics to students of science and engineering. In particular, marine engineering and sea captains for over three decades. Emanuelsson has authored several Compendiums that are used by other lecturers as well. He has been one of the department's experts in "Mathematica". Emanuelsson's field of interest is harmonic analysis, where he has conducted basic research

For orders and enquiries, please contact us:

FEEL Books

FEELBOOKS PVT. LTD.

www.feelbooks.in

DELHI	4381/4 Ansari Road, Daryaganj, New Delhi 110002	**Tel:** +91-11-47472630
	Pushpendra Kumar **Mobile:** +91 9015043442	**Email:** orders@feelbooks.in
BENGALURU	C-22, Brigade MM, KR Road, Jayanagar 7th Block, Bengaluru 560070	**Tel:** +91-80-26762129
	Shekar Reddy **Mobile:** +91 9945234476	**Email:** bangalore@feelbooks.in
MUMBAI	Alok Dube **Mobile:** +91 9833435804	**Email:** adube@feelbooks.in
CHENNAI	G Srinivasan **Mobile:** +91 9003047502	**Email:** gsrinivasan@feelbooks.in
KOLKATA	Dhrubajyoti Bhattacharjee **Mobile:** +91 9836160013	**Email:** dbhattacharjee@feelbooks.in
HYDERABAD	Kundan Kumar.S **Mobile:** +91 8106726072	**Email:** kundan@feelbooks.in

For any queries, please email us at marketing@feelbooks.in